MANAGEMENT AND CARE OF THE AGING HORSE

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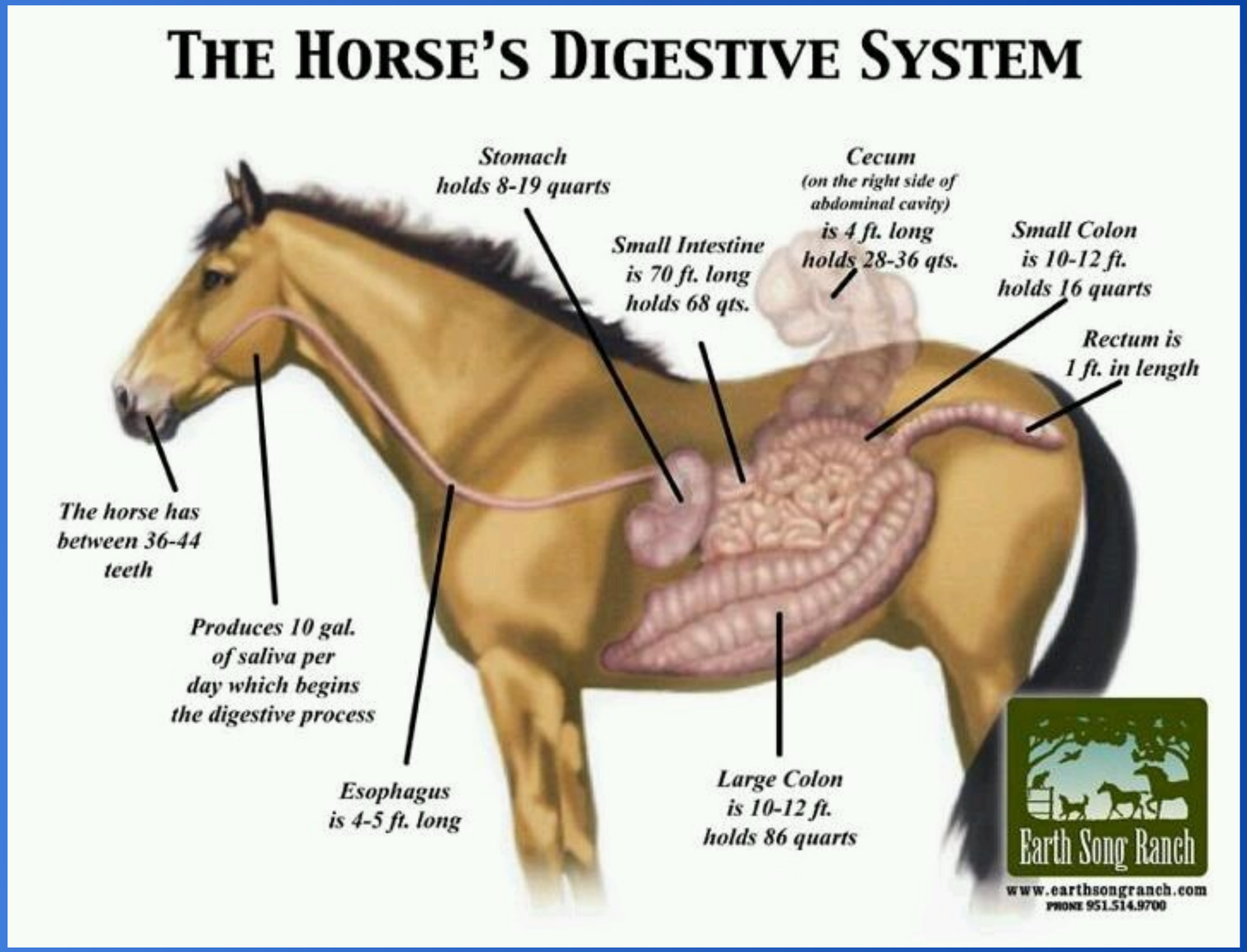
AGE IS JUST A NUMBER

- Defining Geriatric - 15-20+ (US 22)
  - Chronological age vs. physiologic age
- General Demographics
  - Horses over 15 - approximately 28%
  - Horses over 20 - approximately 7%
  - Horses over 30 - approximately 0.7%

- NUTRITION
- DENTITION
- ENDOCRINE/METABOLIC
- MUSCULOSKELETAL

NUTRITION

- The path of feedstuff through the horse . . .



NUTRITION - CHANGES IN THE OLDER HORSE

- Decreased metabolic rate and caloric demand
- Older horses prone to dental problems affecting ability to chew AND decreased saliva production
- Increased fiber length entering the GI tract.
  - Increases risk for choke and impactions
  - Decreased the nutrient digestibility and changes gut microflora.
    - Decreased B complex and K vitamins

NUTRITION - GOALS

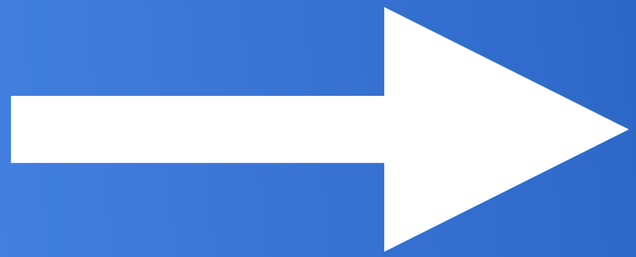
- 1.5 - 2% of Body Weight in lbs of food per day (includes both hay and grain)
- Supplement hay with palatable feed of small particle size
  - Amount dependent on dentition
- Increased Protein (12-14% compared to 8.5% recommended for younger horses)
- Avoid diets high in starches and sugars
- Probiotics - B complex vitamins (make up for impaired microflora).
- Fat can be added in the form of oil if dropping weight/skinny

NUTRITION - WHAT ABOUT PASTURE??

- Act of grazing promotes gentle exercise
- High water content in grass
  - Easy to chew, swallow and digest.
- If pasture length exceeds 6 cm they can can still obtain significant portion of daily feed intake
- BUT MUST BE WARY OF SUGARS IN METABOLIC HORSES

NUTRITION - FEEDING THE SKINNY HORSE

- Pain
- Bullying in pasture
- Parasites/Sand
- Poor Dental Health
- Decreased caloric intake



- Feed positioning +/- NSAIDS
- Separate for feedings
- Treat appropriately
- Increase pelleted feed
- Increase pelleted feet and fat in diet

NUTRITION - FEEDING THE OVERWEIGHT HORSE

- Restrict to 1.5% of BW in lbs of food per day
- Small frequent meals with slow feed nets/bins
- Non-Structural Carbohydrates (NSC) of feedstuff (hay or grain) should not exceed 10%
    - If not possible to find hay of low NSC, soaking may be adequate
- Continue to feed an appropriate forage balancer
- Increase exercise (even low impact) if possible

- NUTRITION
- **DENTITION**
- ENDOCRINE/METABOLIC
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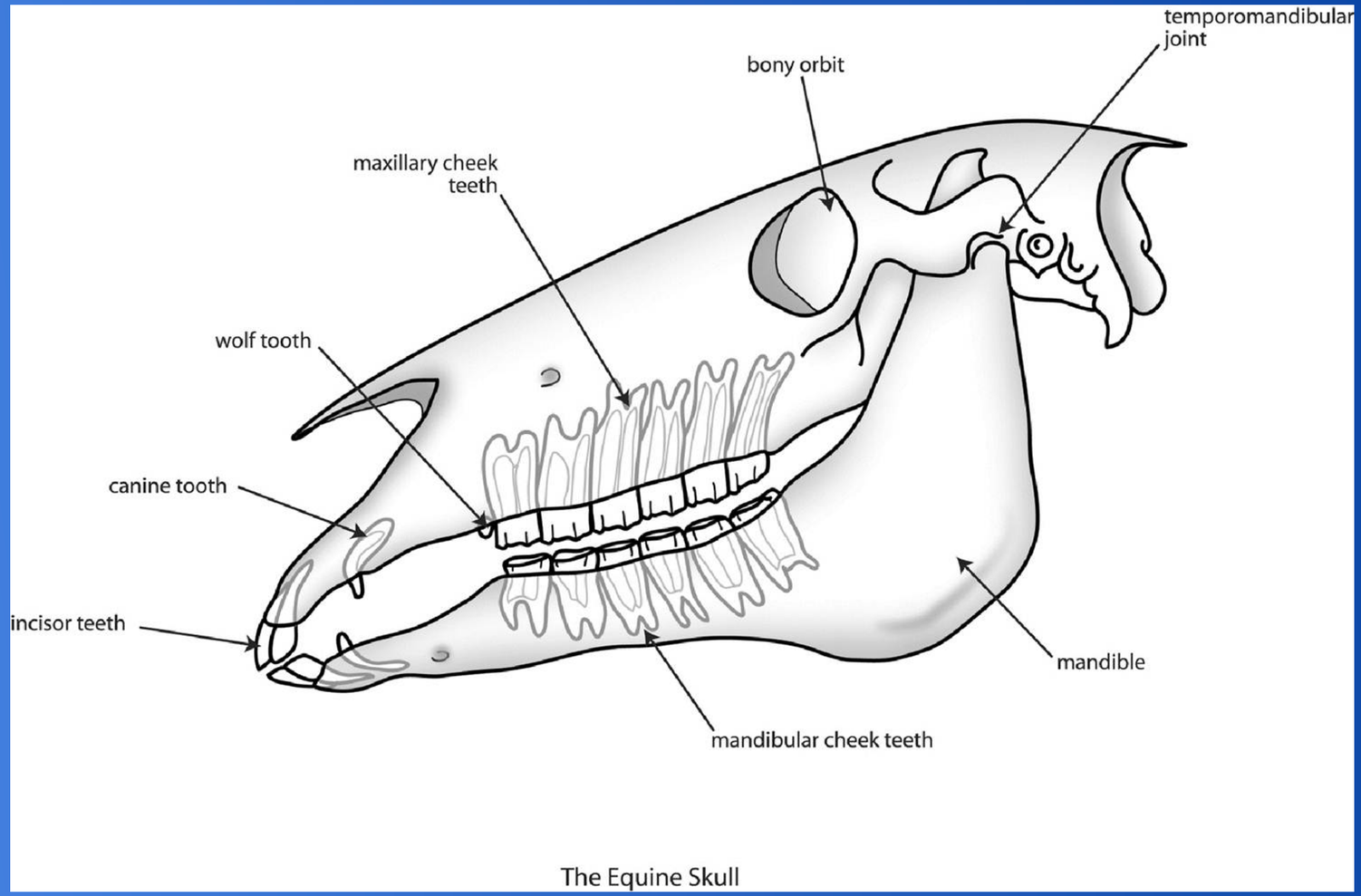
DENTITION

- “Long in the tooth”
- Equine teeth constantly pushing through the gumline but there is a finite amount of tooth



The Equine Skull

DENTITION - CHANGES IN THE OLDER HORSE

- Molars taper to allow for gaping to develop between teeth
  - Periodontal disease
- Reduction in the functional grinding surface of the tooth
- Contact between maxillary and mandibular teeth causes abnormal wear patterns

DENTITION - INCISOR DISEASE

- Equine Odontoclastic Tooth Resorption and Hypercementosis (EOTRH)
  - Unknown cause (suspect genetic to some degree)
  - Tooth removal is the only treatment

- NUTRITION
- DENTITION
- **ENDOCRINE/METABOLIC**
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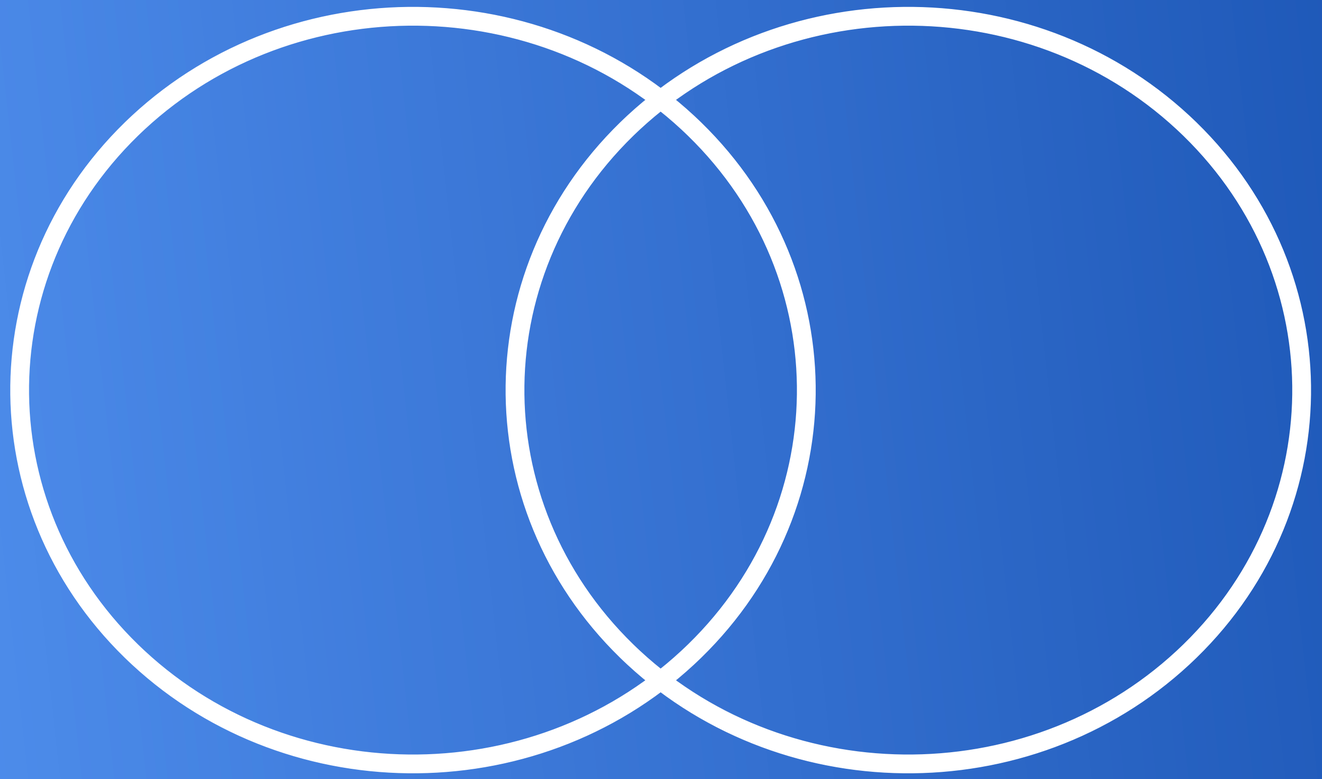
ENDOCRINE/METABOLIC DISEASES

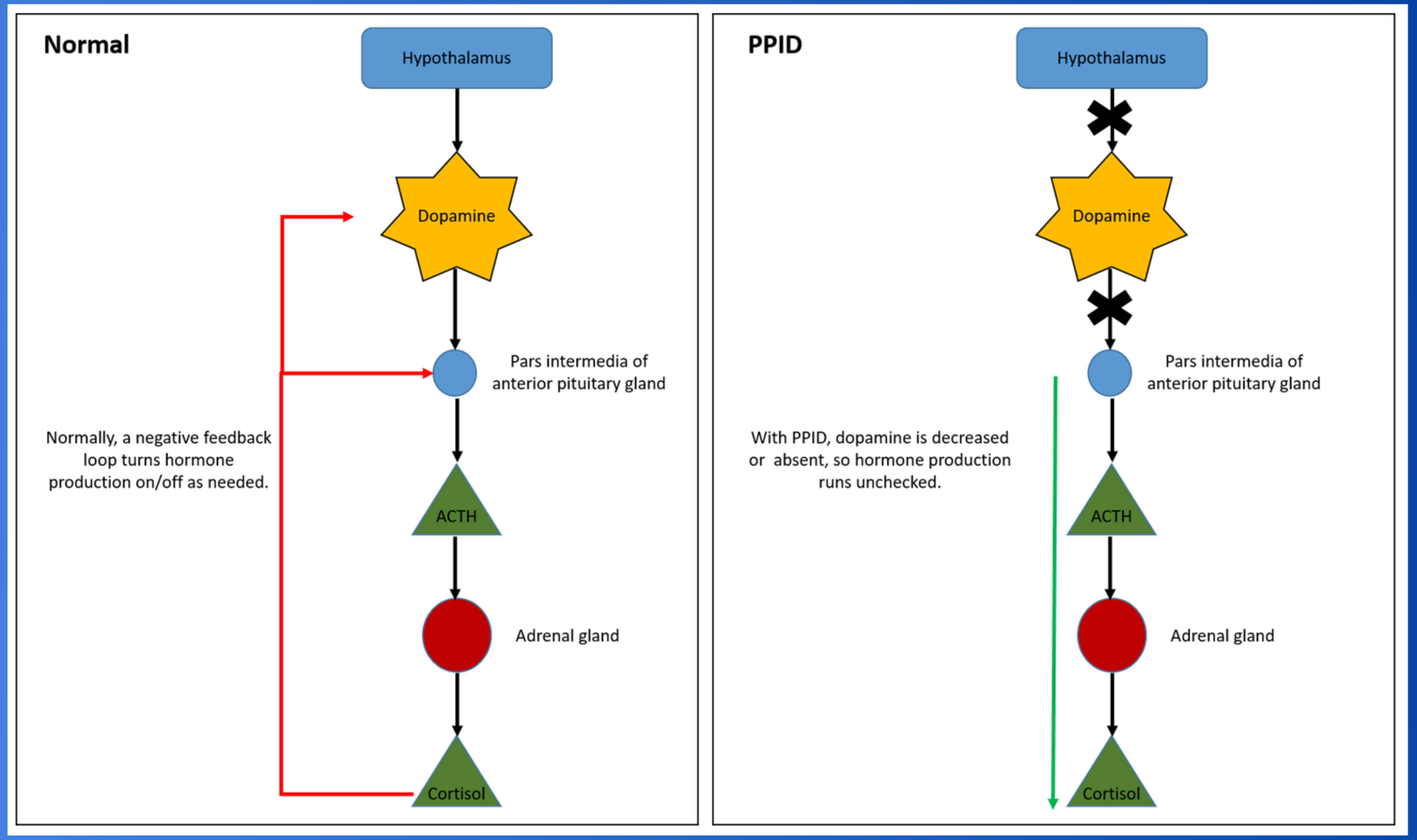
Pituitary Pars Intermedia (PPID)



Equine Metabolic Syndrome (EMS)

ENDOCRINE - PITUITARY PARS INTERMEDIA DYSFUNCTION (PPID)

- Dysfunction of the pars intermedia region of the pituitary causing hormonal imbalance —> signals the adrenal gland to produce cortisol (steroid)
- Increased levels of steroid ultimately effects immune system function



UC Davis Vet Med 2020

PPID - OVERVIEW

- Affects 20% of horses over the age of 15
- Affects 30% of horses over the age of 30
- Previously only recognized advanced signs
  - Excessive haircoat
  - Pendulous Abdomen
  - Laminitis
- Used to associate these signs with aging horses

PPID - CLINICAL SIGNS

- Early Clinical Signs
  - Reduced/patchy shedding
  - Loss of topline muscle
  - Lethargy
  - Decreased performance
  - Abnormal sweating

PPID - CLINICAL SIGNS

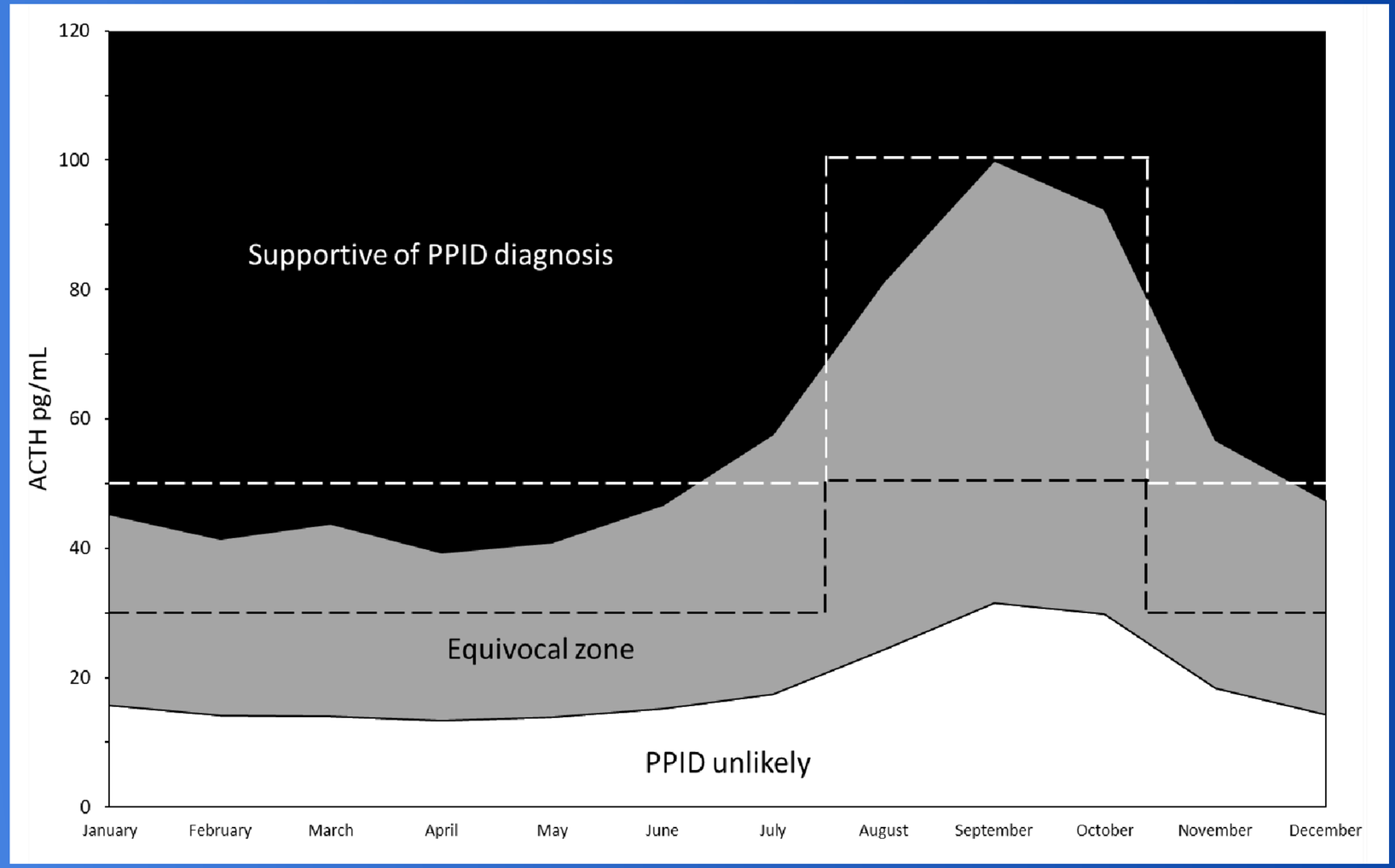
- Advanced Clinical Signs
  - Increased haircoat year round
  - Muscle atrophy
  - Exercise intolerance
  - Increased water consumption and urination
  - Recurrent infections/abscesses

PPID - COMORBIDITIES

- Laminitis
- Infertility
- Tendon/ligament issues
- Regional fat pads

PPID - DIAGNOSIS

- Baseline ACTH
  - Blood Test
  - Seasonal Variability



PPID - DIAGNOSIS

- TRH Stimulation
  - More sensitive to test
  - Used to diagnose horses with subtle signs
  - Challenges the pituitary via the feedback loop
  - Only used January through June

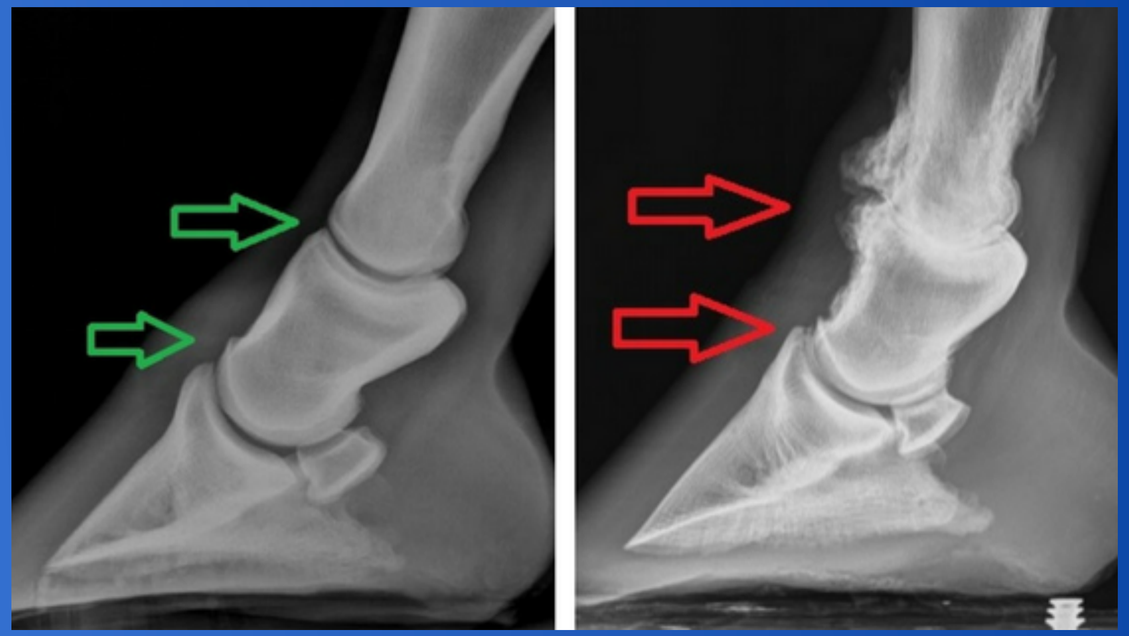
PPID - TREATMENT

- There is no cure - aim to control signs and secondary conditions
- Pergolide (Prascend) - Dopamine receptor agonist.
- Address other associated conditions

- NUTRITION
- DENTITION
- ENDOCRINE/METABOLIC
- **MUSCULOSKELETAL**

MUSCULOSKELETAL - ISSUES AT HAND

- Multiple sites of arthritis
- Decreased muscle mass/tone
- Concurrent conditions
  - PPID and EMS
  - Organ function for drug metabolism



Irongate Equine Clinic

MUSCULOSKELETAL - GOALS

- Transitioning to a “Whole Horse” approach
  - Systemic antiinflammatories (Equioxx)
  - Systemic joint support (Adequan/Legend)
  - Therapeutic farriery as needed
- Low impact strength training
  - Healthy muscling supports joint health
- Choose therapies that accommodate concurrent conditions

- NUTRITION
- DENTITION
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END OF LIFE PLANNING

- Finding the “right time”
- Setting boundaries
- Plans for before, during and after